

GEOGRAPHICS by Dave George

GEOGRAPHICS is a dynamic world atlas for the Macintosh. You can create maps either directly from GEOGRAPHICS or from a simple text file. Any map can be saved either as a GEOGRAPHICS map file or as a text (Merge) file. Additionally, you can build special point files which contain information about points of interest on the map. A map file called 'USMAP' is on the system as well as a special point file containing state capitals called (strangely enough) 'CAPITALS'. You can download them and play with them to see how these files are built and used.

Basically, the screen consists of two main windows. The large window, or map window, should be viewed as a magnifying glass through which you're viewing a large world map. The scroll bars control at what coordinates the magnifying glass is positioned. The position of the upper left corner of the map window are displayed in the 'Top' and 'Left' fields of the top, or 'Status' window. Several other items of interest are displayed in the status window also and are described later.

Coordinates on the maps are Integer Base 10. Western longitudes and Northern latitudes are negative integers, while Eastern and Southern coordinates are positive integers. This means that 25.00N 122.00W would be represented as -2500 and -12200, while 25.00S 122.00E would be represented as 2500 and 12200. There are two exceptions to this rule, however. When mouse coordinates are displayed in the status window they'll be displayed as positive integers followed by the normal notation for north, south, east, or west. Also, all coordinates in merge (text) files follow all normal conventions for coordinates including normal notation and decimals. Since coordinates are maintained as

integers, the last two numbers of the integer, which designate the minutes of the longitude and latitude, are base 10 rather than base 60 as is normally the case in global coordinates. Therefore 35 degrees 30 minutes latitude (35.30N) on normal notation will be -3550 ($60/30=1/2$ & $100/50=1/2$). Future releases of this software will incorporate completely standard notation.

The Status Window

The status window contains several fields and icons which keep you abreast of what's happening on the map. A 'Pen Up' and 'Pen Down' icon will be highlighted to tell you whether your map editing pen is up or down. Two boxes marked 'Long' and 'Lat' tell you the longitude and latitude of your cursor during map editing. The 'Length' box will tell you how many points your map contains (up to a maximum of 2000 per map) during editing. It also displays the length of a line entered from the 'Measure' option. The 'Left' and 'Top' fields tell you where the upper-leftmost point of your map window is located in Integer Base 10 coordinates. You can edit these fields to place your map viewing window precisely, however, you must enter the values as negative and positive numbers without decimals. When you use the scroll bars to move the display, take note of how these windows are updated and use the same format when you do it.

The last field is the Scale field and is one of the most fascinating parts of GEOGRAPHICS. You can enter any value from 1 to 50 and your map will be redisplayed in that scale. If you want to see more of the map, increase the scale. To see the map in closer detail, decrease the scale. All map editing and coordinate displays relate to the current scale. This gives you very precise control over minute details of your map.

To edit or create a map you select one of the features from the 'Points' menu. You can add items one of two ways, as a simple point to point line or as a polygon (representing continents or major boundaries). The last menu item in the Points menu toggles between these two types. To add new points, you select 'Add' and point and click.

To edit points, you select 'Edit' then drag any point to its new location. To delete points, select 'Delete' and click on the points. To insert, select 'Insert' and click on the line between the two points in which you want to enter the new coordinates. The 'Measure' option allows you to enter a line, the accumulated length of which will be displayed in the 'Length' field.

Mouse coordinates displayed while editing maps can be displayed one of two ways. Global coordinates as described above are the normal. This can be changed to Local coordinates by selecting that option under the Plots menu. In this case, the coordinates are simply the difference, in pixels, between the last point entered and the position

of the mouse.

Display Options

The display of the map window can be modified in several ways from the Display menu. Each option under this menu is turned on the first time you access it and turned off the next time you access it. You can toggle on and off Latitude and Longitude lines as well as Time, Special Points, and a Show Page. Time displays and updates time zone

across the top of the current map window. Times are displayed starting with 180.00W and continue through 180.00E, therefore, the current system time will be displayed at 180.00W. This means, if you're viewing east of that position, the time at the top of your map will be the time it would be at that position on your map if it were the current

system time at 180.00W.

The Page option is an alternative way of moving around the map to the scroll bars. It's similar to the Show Page feature of MacPaint.

Turning on Special Points allows you to display and modify special points of interest on your map as described above. These are special files saved separately from your map. When this option is on, clicking anywhere in the map window will add a new special point. If you click on an existing special point, an information window will open

up. You can enter specific

information about the point such as a title, its location, and any other pertinent information. You can have up to 50 special points at any one time. To modify a special point's location, simply change the latitude and longitude fields of the information window. Once you've entered the information for that special point, selecting the 'Accept'

button or simply pressing RETURN will update the information. If you decide to revert to the previous information, select the 'Cancel' button, and if you want to get rid of a specific point, select the 'Delete' button. Special Point files are saved using the 'Save Points' option under the file menu. 'Load Points' will load a new special points

file and 'New Points' will delete all special points in memory and allow you to enter new ones.

Once maps have been created they can be COPIED ONLY to the Scrapbook using the Copy selection on the Edit menu. You must first be sure the map viewing window is the active window (selected and highlighted). Once pasted into the Scrapbook it can be Cut, Copied, or Pasted into MacPaint, MacDraw, MacWrite, or any Macintosh application that

allows standard pictures to be displayed. Only the area that's currently displayed in the window will be copied.

Hints for Use

You may want to create several map files and save them as merge files. This will allow you to use them as overlays on a main map. For instance, create a file with all the time zone coordinates and merge them onto an existing map file. Or do the same with Area Codes over the top of the US map. The best way to create maps from scratch is

to start by entering the major points in a text file using MacWrite or some other text editor such as edit. Once these have been entered you can Merge them into a new file and use the Insert feature to add detail.

That's about all for this version (1.2). Future versions will include a compass, as well as several other display options. Geographics is copyrighted by Dave George, 1986. Feel free to pass out copies of the program. If you feel you'd like to keep it and have a use for it, please send \$15 to cover development costs and I'll forward the next ve

rsion to you free of charge. If you have some suggestions or comments about the program, feel free to call or write to:

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GEOGRAPHICS was written using Zedcor's ZBasic, therefore portions of it are copyrighted by them (mandatory statement here..). Above all else, have fun with GEOGRAPHICS, that's what it was written for.....